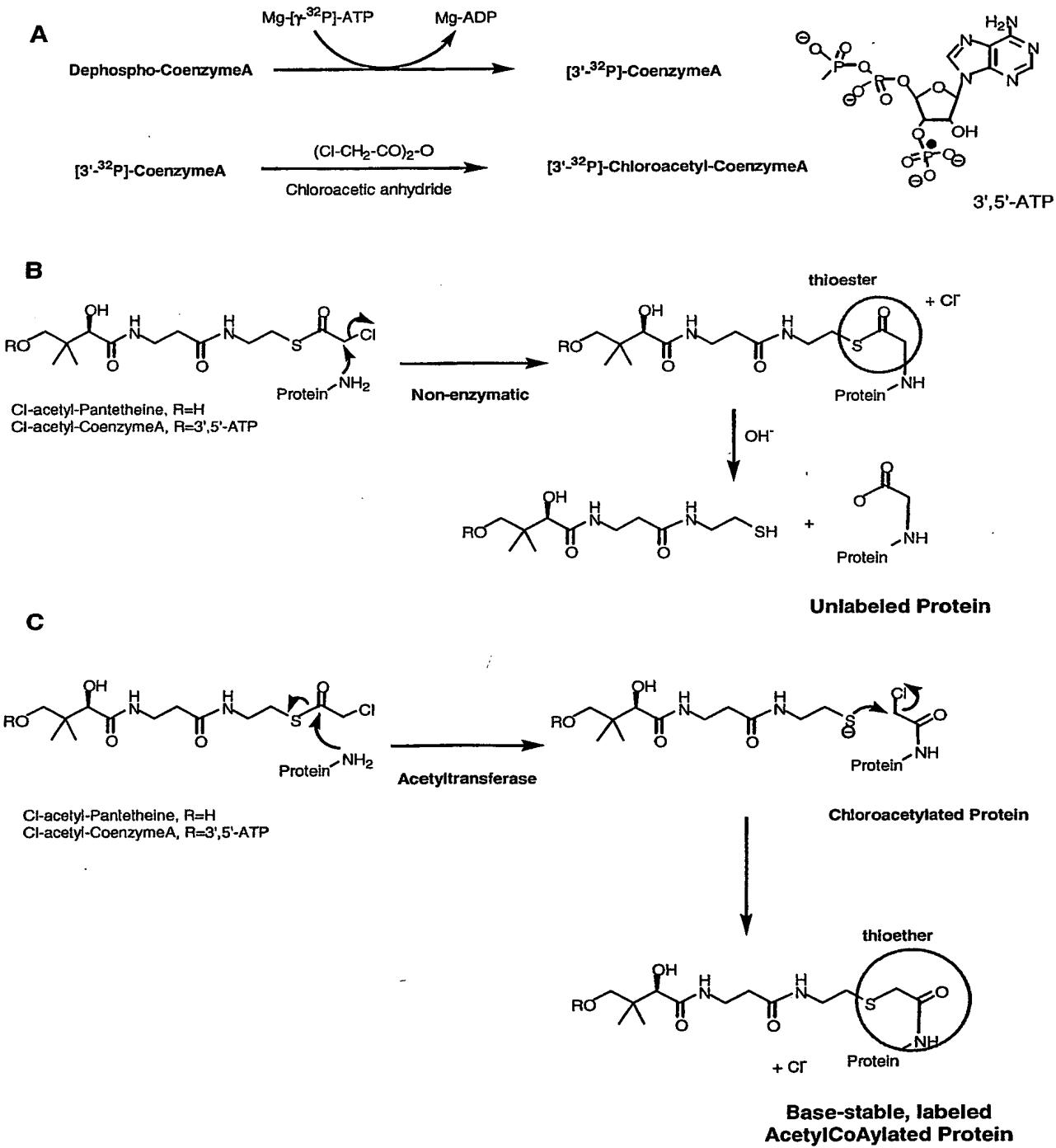
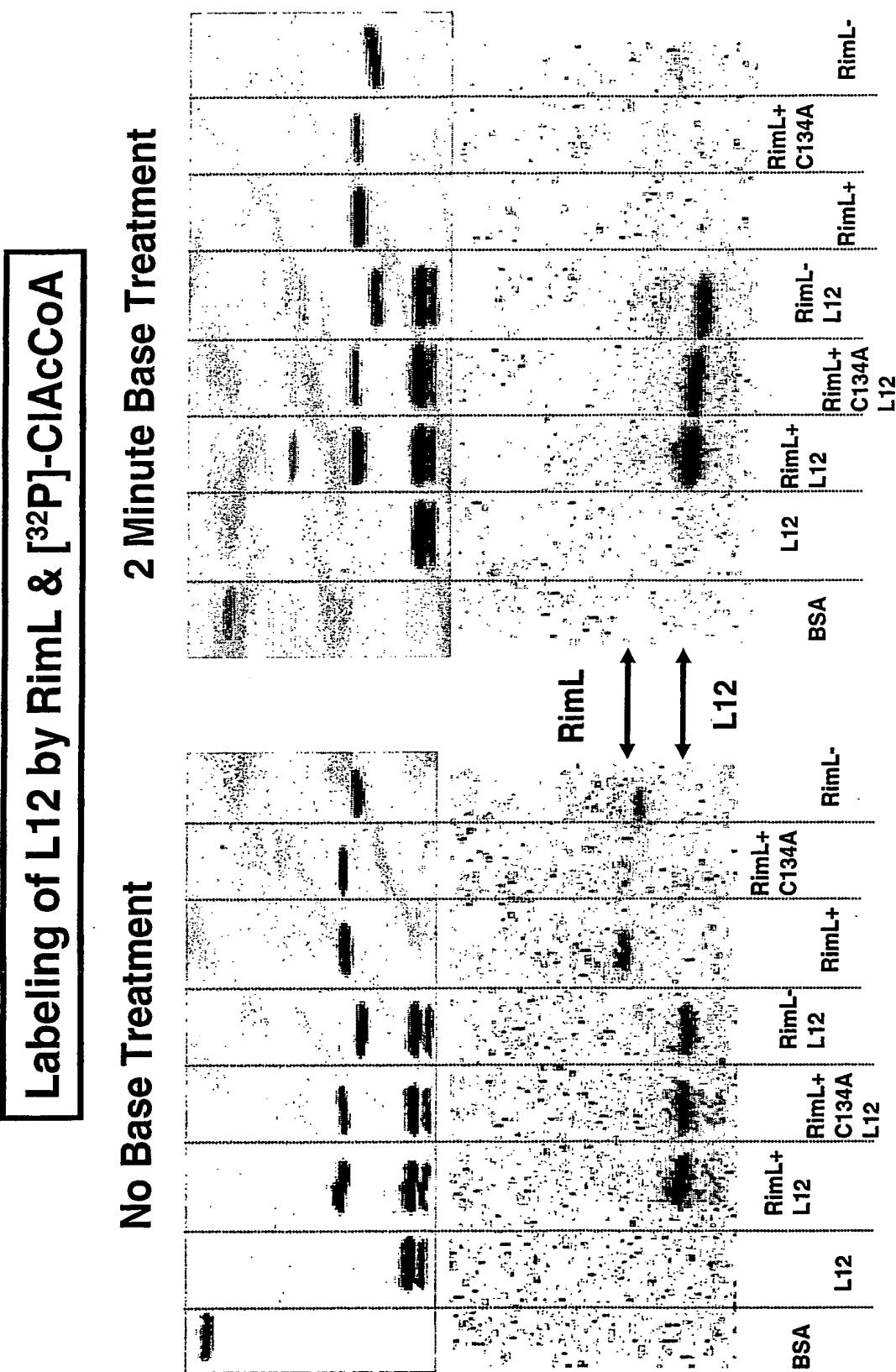


**1/7**  
**FIG. 1**



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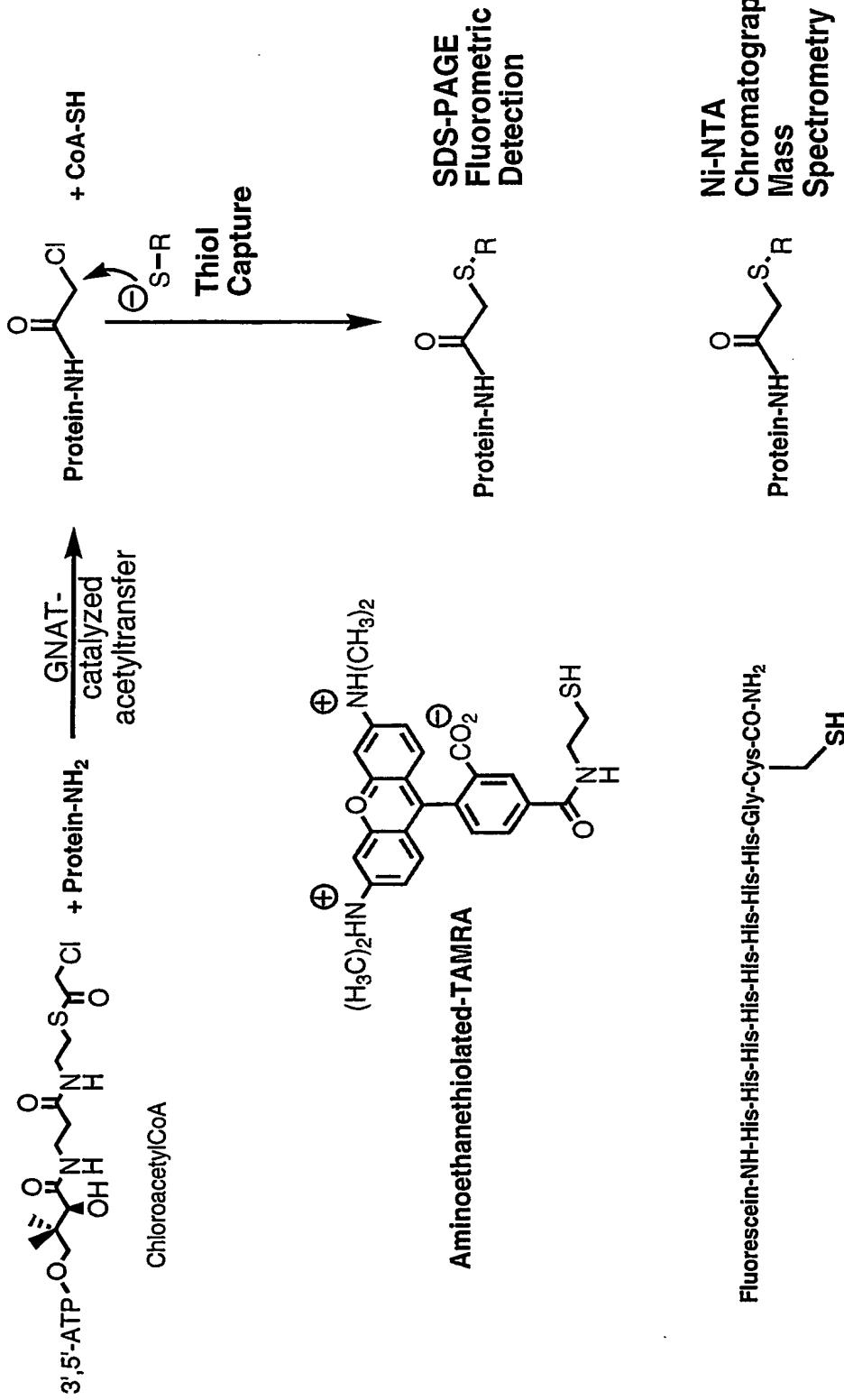
2/7  
FIG. 2



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3/7  
FIG. 3

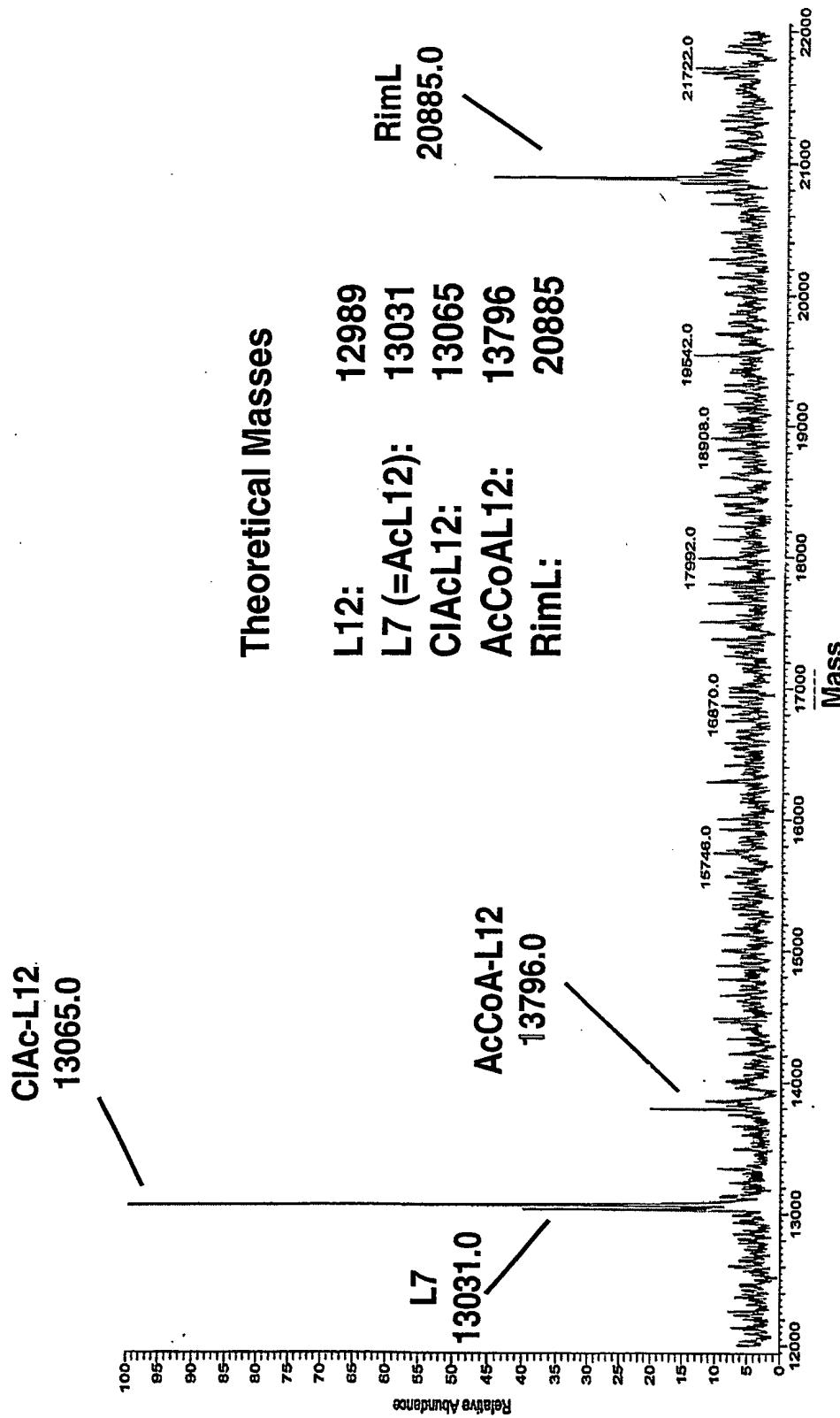
**Proteome Profiling of GNAT Substrates**



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4/7  
FIG. 4

**Mass Spectrometry of RimL-catalyzed AcetylCoAylation of L12**



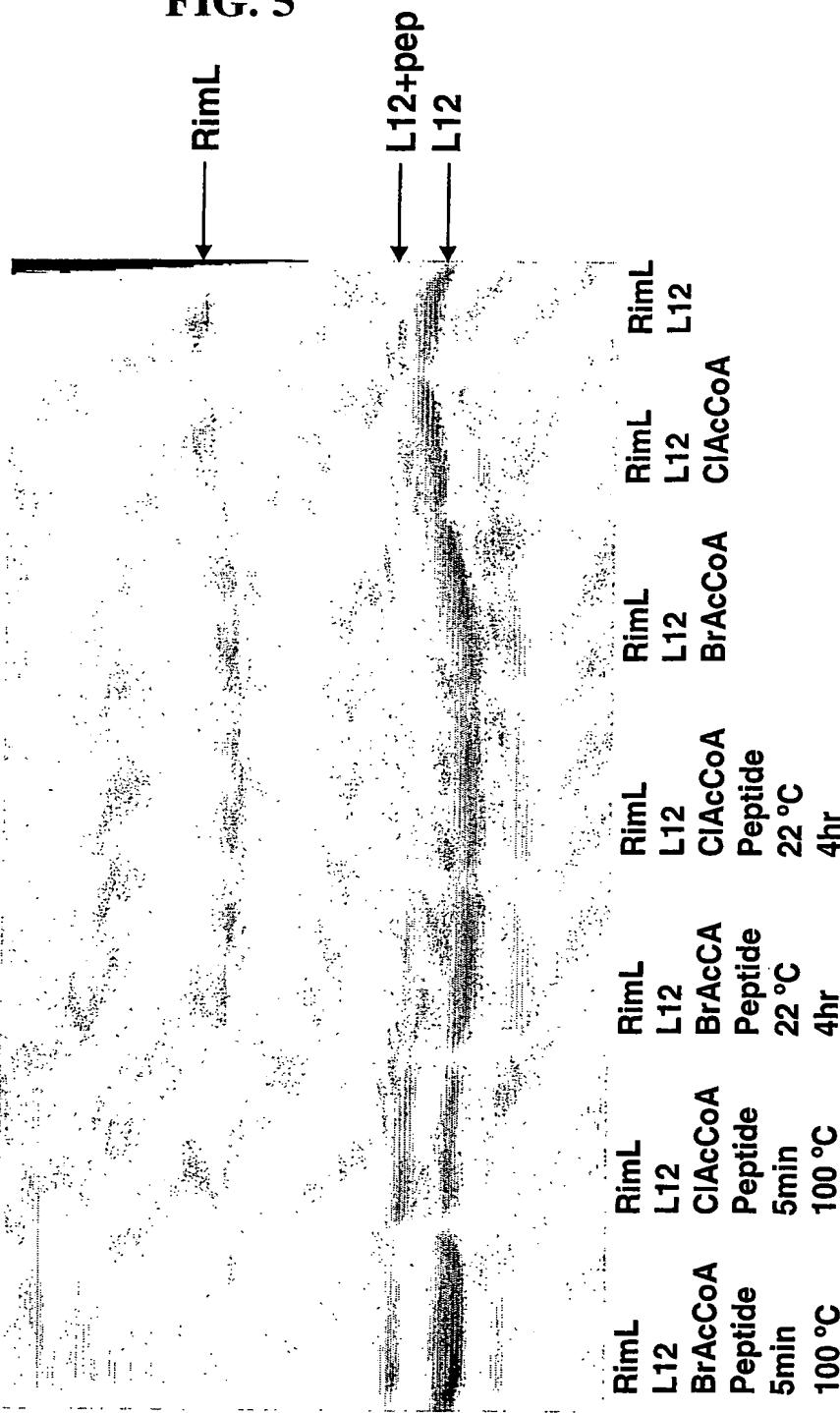
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5/7  
FIG. 5

### Affinity Labeling of Acetyltransferase Substrates

Cl-acetylation or Br-acetylation  
**50mM Tris, pH 7.5**  
**RimL 2uM**  
**L12 40 uM**  
**ClAcCoA, BrAcCoA 250 uM**  
**37°C for 1hr**

Thiol capture peptide  
**100mM Tris, pH 8.5**  
**1mM thiol peptide (HHHHHHGGC)**  
**Different temperatures**

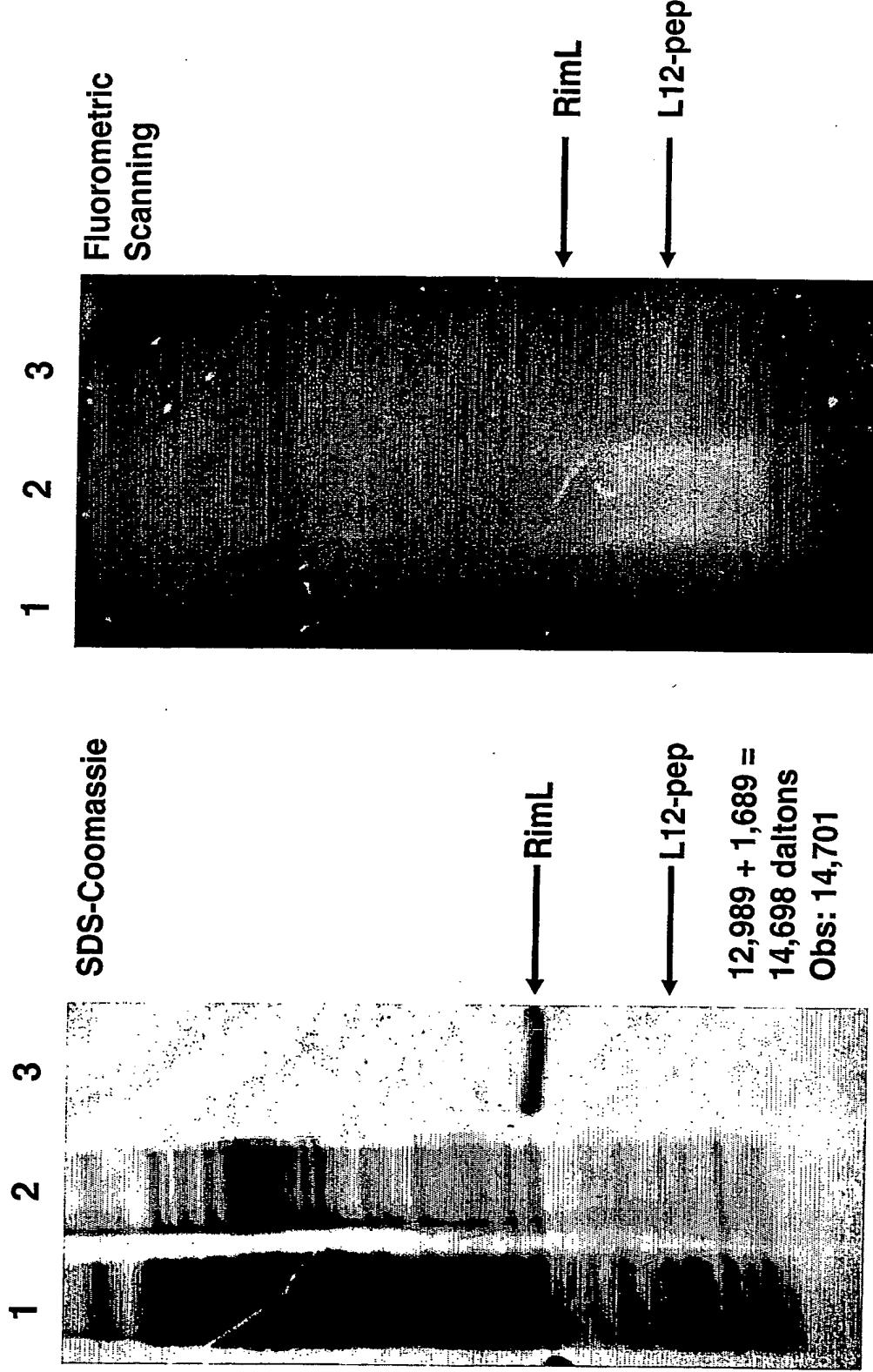


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6/7  
FIG. 6

**Labeling of L12 in Crude Cell Extracts**

1: Crude cell lysate 2: Lysate + RimL + C1AcCoA + Fl-His8-Cys 3: 2 after Ni-NTA



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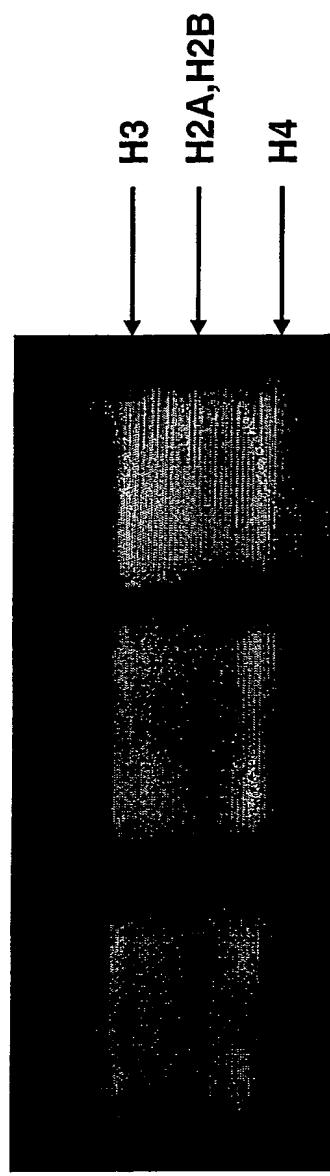
7/7  
FIG. 7

## Chloroacetylation of histones by Hat1 Acetyltransferase

### Comassie Staining



### Fluorometric Detection



### Thiol capture

3 mM TAMRA-CH<sub>2</sub>CH<sub>2</sub>SH  
200 mM pH 8.4 Tris  
4 hr

5 min      15 min      25 min

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